GBE Calculator Thermal Bridge LoftZoneStoreFloor

Ideally print A4 landscape

Layer	Material	Thickness mm	thickness meters	Thermal Conductivity	Thermal Resistance	Width	Spacing x	Fraction Area	Thermal Resistance R value	Calculated Uvalue	Target U value	
	Existing Joist depth (mm)											
				W/m.K	m2.K/W					W/m2.K	W/m2.K	
0	**With top-up insulation above joists**											
1	external surface	-	-	-	0.040				0.0400			
2	Roof space beneath tiled roof with felt or board	-	-	-	0.200				0.2000			
5.2	continuous layer of thermal conduction insulation mineral fibre quilt	350	0.350	0.044	7.955				7.9545			
6.1	mineral fibre quilt thermal conduction insulation between joists	75	0.075	0.044	1.705	568	600	94.67%	1.6136			
6.2	Timber joists at centres	75	0.075	0.13	0.577	32	600	5.33%	0.0308			
8	plasterboard	12.5	0.013	0.25	0.050				0.0500			
9	internal surface	-	-	-	0.100				0.1000			
10	Total R value	-	-	-	10.626				9.9890			
11	U Value									0.1001		W/m2.K
12	Total Insulation thickness	425										
13	Passivhaus New Build										0.150	W/m2.K
14	AECB CarbonLite Step 1 Silver										0.150	W/m2.K
15	AECB CarbonLite Step 2 Passivhaus UK										0.150	W/m2.K
16	AECB CarbonLite Step 3 Gold										0.150	W/m2.K
17	EnerPHit Passivhaus Retrofit										0.150	W/m2.K
18	AECB CarbonLite Retrofit Step										0.100	W/m2.K

NB:
These design standards do not normally state U values but set maximum building energy demands and their respective software determines U values based on many building and site parameters.
These U values are only give as an example.